Spring Framework

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Spring comprises of seven modules.

The core container
The core container provides the essential functionality of the Spring framework. A primary component of the core container is the BeanFactory, an implementation of the Factory pattern. The BeanFactory applies the Inversion of Control (IOC) pattern to separate an application's configuration and dependency specification from the actual application code.

Spring context
The Spring context is a configuration file that provides context information to the Spring framework. The Spring context includes enterprise services such as JNDI, EJB, e-mail, internalization, validation, and scheduling functionality.

Spring AOP
The Spring AOP module integrates aspect-oriented programming functionality directly into the Spring framework, through its configuration management feature. As a result you can easily AOP-enable any object managed by the Spring framework. The Spring AOP module provides transaction management services for objects in any Spring-based application. With Spring AOP you can incorporate declarative transaction management into your applications without relying on EJB components.

Spring DAO
The Spring JDBC DAO abstraction layer offers a meaningful exception hierarchy for managing the exception handling and error messages thrown by different database vendors. The exception hierarchy simplifies error handling and greatly reduces the amount of exception code you need to write, such as opening and closing connections. Spring DAO's JDBC-oriented exceptions comply to its generic DAO exception hierarchy.

Spring ORM
The Spring framework plugs into several ORM frameworks to provide its Object Relational tool, including JDO, Hibernate, and iBatis SQL Maps. All of these comply to Spring's generic transaction and DAO exception hierarchies.

Spring Web module
The Web context module builds on top of the application context module, providing contexts for Web-based applications. As a result, the Spring framework supports integration with Jakarta Struts. The Web module also eases the tasks of handling multi-part requests and binding request parameters to domain objects.

Spring MVC framework
The Model-View-Controller (MVC) framework is a full-featured MVC implementation for building Web applications. The MVC framework is highly configurable via strategy interfaces and accommodates numerous view technologies including JSP, Velocity, Tiles, iText, and POI.

Scopes

Scope	Description
singleton	Scopes a single bean definition to a single object instance per Spring IoC container. Default scope.
prototype	Scopes a single bean definition to any number of object instances.
request	Scopes a single bean definition to the lifecycle of a single HTTP request; that is each and every HTTP request will have its own instance of a bean created off the back of a single bean definition. Only valid in the context of a web-aware Spring ApplicationContext.
session	Scopes a single bean definition to the lifecycle of a HTTP Session. Only valid in the context of a web-aware Spring ApplicationContext.
global session	Scopes a single bean definition to the lifecycle of a global HTTP Session. Typically only valid when used in a portlet context. Only valid in the context of a web-aware Spring ApplicationContext.